



AN EMPIRICAL STUDY ON ECONOMIC IMPACT OF LOCKDOWN ON INDIAN ECONOMY

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Abstract: The pandemic (Covid19) and its unabated spread has left the entire world to come to terms with disastrous consequences and its aftermath, and India is no exception to be affected by the deadly virus. Failure to contain can blanket the survival rate that can be responsible for widespread deaths which may overwhelm health and care infrastructure. Due to remarkable population, poor socio-economic conditions as well as less health awareness in rural area, the WHO has expressed concern that the future to handle this pandemic is a challenge to India and it entirely depends as to how effectively it is addressed. The objective of this research is to focus on Post lockdown impact on different sectors viz. Energy supply, Supply Chain, Agriculture, transport, etc. and to explore impact of lockdown on Indian economy. It is found that, majority of the sectors have suffered a setback during the pandemic period, however to overcome that setback they have come up with some innovative practices which helped majority of them to survive the crisis situation.

Keywords: Pandemic, Virus, WHO, SARS-COV-2, Organizations etc.

1. Introduction

Never, ever was thought that during the thriving economy of the world, a world that was becoming increasingly engaged for global robustness, things would become to a grinding half, due to an unbecoming pandemic. Fighting and facing this global crisis has become a worldwide challenge and all of us want to return to our normal lives but not until we are prepared for a possible more crisis and a setback. We need to learn, to evolve from this ongoing crisis only to find out there are no possibilities of the same Entire world despite the common themes like anxiety, fear, isolation discrimination, there is a clear common humanity behind these emotions and it would take longer years to confront them. The collective experiences gives us more power to connect one and all, uniting us across race,

creed, borders and boundaries. Stories of hope, altruism, disaster and emotional bonding are also working together to save lives, uplift one another to take up challenges through business world which has shown a slump down for the past one year.*

2.1 Research Methodology:

In this paper descriptive research design has been used to study the post lockdown effect on Indian economy. For this purpose, secondary data has been collected through journal, magazines, news articles, government gazettes, etc.

2.2 Objectives:

- a. To focus on Post lockdown impact on different sectors viz. Energy supply, Supply Chain, Agriculture, transport, etc.
- b. To explore impact of lockdown on Indian economy.

3. Data Analysis:

In order to study the impact of COVID-19 lockdown on various segments of the economy following analysis have been made:

3.1 Post Lockdown Impact on Energy supply Business

The demand of electricity has been reduced significantly due to the recent COVID-19 pandemic lockdown. Governments around the world were compelled to reduce the business activity in response to minimize the threat of coronavirus. This on-going situation due to COVID-19 has changed the lifestyle globally as people are mostly staying home and working from home if possible.†

During the pandemic the sector for energy has surprisingly shown flexibility with supplies catching up admirably despite the turmoil in financial and energy markets. From oil, mines and burner tips, the energy supply chain has remained steady surprisingly. The recovery in the energy sector is expected to follow in the overall economy. Not to mention a few demand for energy commodities has dropped by 25 to 30 percent during the lockdown thus adversely effecting the plant growths and inventory pile ups. Energy companies also need to come out of this pandemic misery and upgrade their technological prowess. Collecting

* Hasanat, Mohammad & Hoque, Ashikul & Shikha, Farzana & Anwar, Mashrekha & Abdul Hamid, Abu Bakar & Huam, Tat. (2020). The Impact of Coronavirus (Covid-19) on E-Business in India.

† Madurai Elavarasan R, Shafiullah GM, Raju K, et al. COVID-19: Impact analysis and recommendations for power sector operation. *Appl Energy*. 2020;279:115739. doi:10.1016/j.apenergy.2020.115739

dues efficiently managing supply chains maintaining critical assets or evolving to handle ground situations of day to day operations and innovating tools to upgrade theories of technological tools, must be the need of the hour. COVID-19 has been impacting precariously on the business of energy mix. Human communities understood the importance and demand for electricity in their life. Social streaming video platforms to entertainment impacting more on use and reliable of sources of distancing, home confinement, tele-working, use of ecommerce sites to do their shopping, electricity is must. Due to increasing number of home confinement the home gadgets like collapse oil demand and gas demand. In some countries, large scale production and exports of oil fridges, washing machine, and light bulbs are getting used more than December, 2019. In contrast to electricity demand, global oil and gas market are facing an unmatched situation due to as well as gas is the vital source income. In other word income from oil and gas is a vital income to fiancé national budget. Oil producing countries are trimming down the cost of management, thus those producing economies are facing contraction instead of growth. Oil exporting countries are now reviewing their macro- as well as micro-economic policies for economic sustenance.

Post Covid-19 energy situation will demand more for clean energy. Bio-Gas and Bio-Methane are sources of clean energy with multiple potential benefits for sustainable development. Agriculture residue, food waste and animal manure can the inputs for bio-gas and bio-methene that would work as the substitute and inputs may fetch up as local source of power, heat, fuel for households for the communities. The corona virus pandemic may be serious enough to realize the clean energy transition of disrupted economy with stimulant for developing clean energy. Thus, there would be boost up of large scale investment for development and integration of clean energy technologies- such as solar, wind power, hydrogen, batteries and carbon capture. Clean energy infrastructure may create lasting difference in international economics, trade, politics and power centres.

3.2 Post lockdown impact on Supply Chain

During the COVID-19 crisis, participating supply chain executives are experiencing textbook supply, demand and control risks in the supply chain. They also observe a lack of preparedness, shortcomings of current response plans and the need for greater supply chain resilience. Focus areas in improving resilience mirror generic recommendations from

literature and provide a rich opportunity to reduce the gap between research findings and efforts in industry.[‡]

Wreaking economic havoc in and around the world and modern supply chain face the unprecedented stress and in turn attracting an increased level of scrutiny .In today' s scenario supply chain network has been optimized to identify minimum lead ,at the lowest possible price Electronics that we want are mostly made in China, so we can buy them cheap. The supply chain is now the leading protagonist everywhere it has moved from playing behind the scenes to being a prime driver of company business. Ultimately when this pandemic subsides it is but obvious that the world is going to look markedly different. China, with its shock effect forced the global economy and exposed the vulnerabilities in the production strategies, supply and choices of firms about everywhere. Many developments combined with a possible India-China cold war, have triggered a rise in economic nationalism and as a result many manufacturers worldwide are going to be under great political pressure to increase their domestic production, grow employment and consequence being the reduction of dependence on others assuming that dependency would also mean confronting unknown risks. This would also give an opportunity for usages of available strategies to the manufacturing fields which requires minimum amount of inventory hold in global supply chain.

Companies are working through substitute sourcing strategies with a critical screening of the operation whether such alternative may create further viral transmission to the different territories through supply chain. Business leaders are to look at new tools and technologies to provide greater intelligence relating to ensuring better supply. Supply system has to deploy the advanced risk evaluation tools that make use of machine learning can find patterns that can indicate risks or opportunities in macroeconomic, geopolitical and global health, exchange rate and other data. USA is underway for long lasting configuration of China-Asian supply chains to build supply resilience for future havocs. The present disruption of supply will no doubt will bring innovation across by adopting end-to-end visibility of supply chain. There would be an end of the traditional linear supply chain model and will be transformed to the digital supply chain networks (DSNs). In this type of innovation the functional silos will be broken down and organizations will become connected to their complete supply network to enable end-to-end visibility, collaboration,

[‡] Remko, v.H. (2020), "Research opportunities for a more resilient post-COVID-19 supply chain – closing the gap between research findings and industry practice", *International Journal of Operations & Production Management*, Vol. 40 No. 4, pp. 341-355. <https://doi.org/10.1108/IJOPM-03-2020-0165>

agility, and optimization. Supply chain will leverage the power technologies, such as Internet of Things, Artificial intelligence and Robotics and 5Gs.

3.3 Post Lockdown impact on Transports Industry

On the roads we would see only electric cars because by 2030 most of the countries of the world may ban the automobiles runs through fossil fuel. At least in the urban streets human folks would deliberately and consciously drive electric vehicles. Streets would be reclaimed by battery operated scooters to visit neighbours, for surfing local markets as well as the trip to farms. Besides the geared vehicle on the road, there would be more pedestrian, battery operated cycle and cyclists. Solar based electric vehicles would supply electric by recharge in day time and by de-charging at night to balance the electricity use for domestic gadgets. The unprecedented global shutdown - a result of the pandemic presents an opportunity to reconfigure the future of transport policy and practice for the benefit of every individual citizens and the like. At large the public health crisis has initiated an urgent reconsideration of transport and it' s contribution to economic recovery. In view towards the importance of individual behavior, governments and collective responsibility in protecting both persons and public health during crisis and from this generates an idea of ' Responsible Transport ' system to shape up the policies and practices during this pandemic .

3.4 Post Lockdown impact on Agricultural and Fish Farming Business Scenario

The COVID-19 pandemic has resulted in immediate, serious, and worldwide human health issues. Necessary counter measures to the virus, e.g. quarantines and other restrictions, will remain in place for many months and have uncertain end dates. International efforts to control the virus by limiting human movement is inevitably causing economic shocks and social costs that will affect the functioning of agricultural and food systems worldwide.§ An immediate accentuated need for vulnerability of India' s Agro and fishery food system' s to reform and digital solutions are perhaps only means to connect the farmers to markets, to create safety nets, ensure reasonable working conditions and to decentralize Agro and fishery food systems to make them more resilient. Food supply chain and depleted workforces caused by the pandemic have hurt the farmers of all sectors in India.

§ Stephens EC, Martin G, van Wijk M, Timsina J, Snow V. Editorial: Impacts of COVID-19 on agricultural and food systems worldwide and on progress to the sustainable development goals. *Agric Syst.* 2020;183:102873. doi:10.1016/j.agsy.2020.102873

Mostly the field in farming horticulture. fruit production, fisheries and poultry have been affected to the most. Food availability in the rural parts during lockdown was in the shocking terms. Therefore, it was a huge problem for administration, researchers, and civil society as a whole. It was found out that poor people' s resilience reached a breaking point. However, the state and the central government' s quick intervention to help the agriculture and fishery sector, to navigate this unprecedented crisis, is not enough and more measures are needed to reboot the sector and ensure to exit the crisis as soon as possible.

There will be drastic reduction in the global trading of mono-culturally produced crops. Days have come to consume global food produced locally to forget animal meat diets. Agro scientists, dietician, and food specialist would explore food plants which complete protein is healthier human sustenance. To restore eco balance billions of deep rooted trees will be planted. Replantation of tree will be an eco legal issue that may stem new businesses based on nature. There would be radical decrease rather an extinction of mass tourism and travels around the world and consequently phase out the aeronautics those cause to sky pollution and rampant fossil fuel extraction from earth. Development of renewable energy and corresponding new technologies for up-cycling to convert the wastage to usable would replace the resource based economy to recycle or circular economy. As the danger of mass congregation in markets, sweet shops, pubs, sports and entertainment shops, these would gradually diminish. The business of packaging and the business exclusively will be dealt depending on packages particularly on the online mode.

3.5 Post Lockdown impact on economy

Since the early days of the COVID-19 crisis the scientific community has constantly been striving to shed light on various issues such as the mechanisms driving the spread of the virus, its environmental and socio-economic impacts, and necessary recovery and adaptation plans and policies. ** We can predict the growth of self-reliant urban villages in the post Covid-19 world. In such urban villages there will be high density population and neighbourhood combined with ample common green space. Significant energy savings, healthy, safe and community-oriented environment will become a point of human consciousness. As we predict, by the next decade there will be more and more construction

** Ayyoob Sharifi, Amir Reza Khavarian-Garmsir, The COVID-19 pandemic: Impacts on cities and major lessons for urban planning, design, and management, *Science of The Total Environment*, Volume 749, 2020, 142391, ISSN 0048-9697, <https://doi.org/10.1016/j.scitotenv.2020.142391>.

with high rise building with solar rooftops, green walls for walled vegetables garden. Agricultural engineering and civil engineering will be together for the emergence of vertical gardening to feed the future of human mouths. May be in future urban villages can be considered and can be isolated and protected more easily than huge cities. Moreover, developments can also foster a sense of belongingness and enhance social interaction. Urban planners also have a challenge ahead to promote sub regions efficiently connected via public transportation while also enjoying internally a high degree of self-sufficiency.

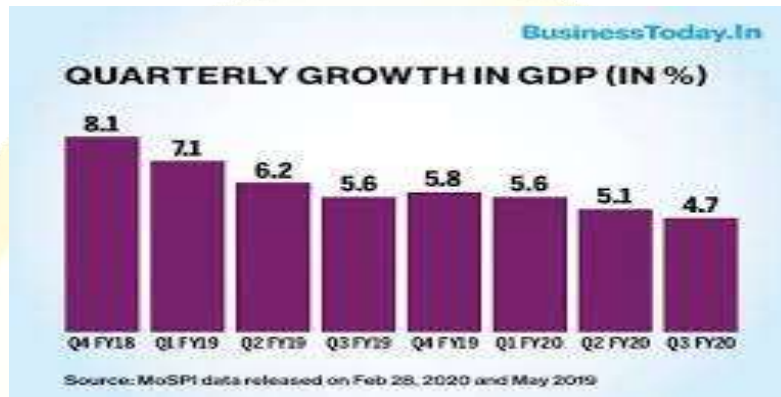


Fig. 1

The above graph clearly shows that the pandemic has severely affected the Indian Gross Domestic production, during this period the growth rate has come down from 8.1% in fourth quarter of financial year 2018 to 4.7% in thirist quarter of Financial year 2020 and after that it has become negative. This economic slowdown has to be tacked carefully. This is because all the production and economic activities were held still and there was no activity except essential supplies and health matters which were the only sector that grew during this period.

6. Conclusions:

Researcher is critical to state from the study that marshalling toward a global response against the elevated urgency of the pandemic situations, nations of the world are implementing many non-binding recommendations regarding quarantine, travel restrictions, global trade restriction, restrictions on domestic trade and other measures. It is too dangerous and terribly negative impact to the Indian economy if we see by real statistics, philosophy of life and psychology after post pandemic or in recovery stage. But, let us positively imagine, the present global crises due to the corona virus are carrying many seeds of opportunity. If we approach them in the right way, by understanding clearly the facts and by strategizing the responses those have had helped us to emerge stronger and wiser on the other side. It is found during the research that majority of the sectors have suffered a setback during the pandemic period, however to overcome that setback they have come up with some innovative practices which helped majority of them to survive the crisis situation.

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